INDEX TO AUTHORS.

A

Alsberg, Carl L. See SAHYUN and ALSBERG, 129

Anderson, R. J. The chemistry of the lipoids of tubercle bacilli. III. Concerning phthioic acid. Preparation and properties of phthioic acid, 169

—. IV. Concerning the so called tubercle bacilli wax. Analysis of the purified wax, 505

Andrews, James C. Note on a previously undescribed form of tyrosine crystals, 353

B

Barron, E. S. Guzman. See MICHAELIS and BARRON, 191

Benedict, Stanley R. Determination of sugar in blood, 165

— and **Newton, Eleanor B.** Studies on the non-sugar reducing substances of the blood and urine. I. Glutathione and thioneine in blood, 361

— and —. The use of tungstomolybdic acid as a precipitant for blood proteins, 357

Boothby, Walter M., Wilhelmj, Charles M., and **Wilson, H. Ellis C.** The question of the oxidation of glucose in phlorhizin glycosuria, 657

Brown, J. B. Arachidonic acid in the lipids of thyroid, suprarenal, and spleen, 777

—. The occurrence of a new highly unsaturated fatty acid in the lipids of the brain, 783

C

Calvery, H. O. Basic amino acids. The estimation of the basic amino acids in small amounts of casein and edestin by the modified method of Vickery and Leavenworth and other methods, 631

—. Some chemical investigations of embryonic metabolism. III. A study of the nitrogen distribution in the developing hen's egg by the modified Van Slyke procedure, 231

—. IV. An investigation of the basic amino acids of the hen's egg during development, 649

Carpenter, Thorne M., Fox, Edward L., and **Sereque, Arthur F.** The Carpenter form of the Haldane gas analysis apparatus. Changes made in the apparatus and details regarding its use, 211

Christman, A. A., and **Mosier, E. C.** Purine metabolism.

XUM

II. The effect of the ingestion of glycine on the excretion of endogenous uric acid, 11

Closs, John O. See KAHLENBERG and CLOSS, 261

Cullen, Glenn E. An improved form of the quinhydrone electrode, 535

— and **Earle, I. P.** Studies of the acid-base condition of blood. II. Physiological changes in acid-base condition throughout the day, 545

—. See EARLE and CULLEN, 539

D

Dakin, H. D., and **West, Randolph.** Note on trimethyl-α-glutarobetaine, 773

Danielson, Irvin S. See NORRIS and DANIELSON, 469

Davenport, H. A., Dixon, H. H., and **Ranson, S. W.** Muscle phosphorus. III. The distribution of acid-soluble phosphorus compounds during parathyroid tetany, 741

—. See DIXON, DAVENPORT, and RANSON, 737

Dixon, H. H., Davenport, H. A., and **Ranson, S. W.** The calcium content of muscular tissue during parathyroid tetany, 737

—. See DAVENPORT, DIXON, and RANSON, 741

E

Earle, I. P., and **Cullen, Glenn E.** Studies of the acid-base condition of blood. I. Normal variation in pH and carbon dioxide content of blood sera, 539

Earle, I. P. See CULLEN and EARLE, 545

Elvehjem, C. A., Steenbock, H., and **Hart, E. B.** The effect of diet on the copper content of milk, 27

—, —, and —. Is copper a constituent of the hemoglobin molecule? The distribution of copper in blood, 21

—. See WADDELL, STEENBOCK, ELVEHJEM, and HART, 251

Evans, Herbert M., and **Lepkovsky, Samuel.** Sparing action of fat on the antineuritic vitamin B, 269

F

Folin, Otto, and **Malmros, Haqvin.** Blood sugar and fermentable blood sugar as determined by different methods, 121

— and —. An improved form of Folin's micro method for blood sugar determinations, 115

— and **Marenzi, A. D.** An improved colorimetric method for the determination of cystine in proteins, 103

— and —. The preparation of uric acid reagent completely free from phenol reagent, 109

— and —. Tyrosine and tryptophane determinations in one-tenth gram of protein, 89

Forbes, J. C., and **Irving, Hazelwood.** An electrometric

method for the determination of chlorides in whole blood and animal tissues, 337

Foster, G. L. The isolation of 3,5-diiodotyrosine from the thyroid, 345

Fox, Edward L. See CARPENTER, FOX, and SEREQUE, 211

G

Gortner, Ross Aiken, and **Sinclair, Walton B.** Sulfur in proteins. IV. The effect of alkalies upon cystine, 681

Gregory, Raymond, and **Pascoe, T. A.** The quantitative determination of bile acids by means of a new color reaction and monochromatic light, 35

Gurin, Samuel. See WILLIAMS, WATERMAN, and GURIN, 321

H

Haller, H. L. See LEVENE and HALLER, 177, 185, 579, 591

Hart, E. B. See ELVEHJEM, STEENBOCK, and HART, 21, 27

—. See WADDELL, STEENBOCK, ELVEHJEM, and HART, 251

—. See WADDELL, STEENBOCK, and HART, 243

Hawkins, James A. See VAN SLYKE and HAWKINS, 51

Hoelzel, Frederick. The Bergeim test for intestinal putrefaction, 331

Hughes, J. S. See TITUS and HUGHES, 463

I

Irving, Hazelwood. See FORBES and IRVING, 337

K

Kahlenberg, Louis, and **Closs, John O.** On the presence of aluminum in plant and animal matter, 261

Kahn, Bernard S. See LEIBOFF and KAHN, 347

Keenan, George L. The optical properties of some amino acids. II. Arginine and histidine, 137

Kemmerer, A. R. See ELVEHJEM, STEENBOCK, and HART, 27

Kennedy, Cornelia, and **Palmer, Leroy S.** Heat and ultra-violet irradiation as means of differentiating vitamins B and G in yeast, 493

Kik, M. C. See SURE, KIK, and WALKER, 375, 387, 401

Kirk, Paul L., and **Schmidt, Carl L. A.** An improved technique for micro calcium analysis, 311

Krafka, Joseph, Jr. Endogenous uric acid and hematopoiesis, 409

Kramer, Benjamin. See SHEAR, KRAMER, and RESNIKOFF, 721

—. See SHEAR, WASHBURN, and KRAMER, 697

L

Leavenworth, Charles S. See VICKERY and LEAVENWORTH, 523

Leiboff, S. L., and **Kahn, Bernard S.** A rapid and accurate method for the determination of urea in blood, 347

Lepkovsky, Samuel. See EVANS and LEPKOVSKY, 269

Levene, P. A., and **Haller, H. L.** On the configurational relationship of chlorosuccinic acid to chloropropionic and to lactic acids, 185

— and —. The configurational relationship of 2-methylheptanol-(6) to lactic acid. With a note on the effect of unsaturation on optical activity, 177

— and —. The configurational relationships of ethylbutyl and propylbutyl carbinols to lactic acid. With a note on the effect of unsaturation on optical activity, 579

— and —. The correlation of the configurations of 2-, 3-, and 4-substituted chloro- and hydroxyaliphatic acids, 591

— and **London, E. S.** The structure of thymonucleic acid, 793

— and **Mori, T.** Ribodesose and xylodesose and their bearing on the structure of thyminose, 803

—. See RAYMOND and LEVENE, 619

London, E. S. See LEVENE and LONDON, 793

M

Malmros, Haqvin. See FOLIN and MALMROS, 115, 121

Marenzi, A. D. See FOLIN and MARENZI, 89, 103, 109

McAlister, Edward D. See WILLIAMS, MCALISTER, and ROEHM, 315

Michaelis, L., and **Barron, E. S. Guzman.** Oxidation-reduction systems of biological significance. IV. Comparative study of the complexes of cysteine with the metals of the iron group, 191

— and **Yamaguchi, S.** Oxidation-reduction systems of biological significance. V. The composition of the oxidized cobalt complex of cysteine. A colorimetric method for the micro analysis of cobalt, 367

Millet, Horace. The excretion of lead in urine, 265

Morgulis, Sergius. A note on the creatine-creatinine excretion during fasting, 299

Mori, T. See LEVENE and MORI, 803

Mosier, E. C. See CHRISTMAN and MOSIER, 11

N

Nash, Thomas P., Jr. On the mechanism of phlorhizin diabetes. III. The effect of phlorhizin upon glycogen storage by dogs with ligated ureters, 139

Newton, Eleanor B. See BENEDICT and NEWTON, 357, 361

Norris, Earl R., and **Danielson, Irvin S.** Comparison of biological and colorimetric assays for vitamin A as applied to fish oils, 469

P

Palmer, Leroy S. See KENNEDY and PALMER, 493
Papadakis, Philippos E. Further findings on invertase from honey, 561
Pascoe, T. A. See GREGORY and PASCOE, 35
Pfiffner, J. J. See ROCKWOOD, TURNER, and PFIFFNER, 289
Pilaar, W. M. M. Determination of carbon monoxide in blood, 43
Pucher, George W. See VICKERY and PUCHER, 1

R

Rabinowitch, I. M. Biochemical findings in a rare case of acute yellow atrophy of the liver. With particular reference to the origin of urea in the body, 333
Ranson, S. W. See DAVENPORT, DIXON, and RANSON, 741
—. See DIXON, DAVENPORT, and RANSON, 737
Raymond, Albert L. A manometric method for the determination of gas in fermentations, 611
— and **Levene, P. A.** Synthetic hexosephosphates and their phenylhydrazine derivatives, 619
Renfrew, Alice G. The chemical study of bacteria. XXIX. A proximate analysis of a defatted residue of avian tubercle bacilli, 569
Resnikoff, Louis. See SHEAR, KRAMER, and RESNIKOFF, 721
Rockwood, E. W., Turner, R. G., and Pfiffner, J. J. A previously undetected constituent of blood, 289
Roehm, Richard R. See WILLIAMS, MCALISTER, and ROEHM, 315

S

Sahyun, Melville, and Alsberg, Carl L. The effect of whole skeletal muscle on blood sugar *in vitro*, 129
Salle, A. J. A micro electrode and vessel for the determination of the hydrogen ion concentration of blood media, whole blood, and other biological fluids, 765
Schmidt, Carl L. A. See KIRK and SCHMIDT, 311
Sereque, Arthur F. See CARPENTER, FOX, and SEREQUE, 211
Shear, M. J., Kramer, Benjamin, and Resnikoff, Louis. Composition of bone. VIII. Conductivity titrations of calcium ion with chloride, acetate, lactate, and citrate ions at 38°, 721
—, **Washburn, Martha, and Kramer, Benjamin.** Composition of bone. VII. Equilibration of serum solutions with dicalcium phosphate, 697
Sherman, H. C., and Stiebeling, H. K. Quantitative studies of responses to different intakes of vitamin D, 497
Shohl, Alfred T. The determination of pH and carbon dioxide on a single small sample of blood plasma or serum, 759

Sinclair, Walton B. See GORTNER and SINCLAIR, 681
Somogyi, Michael. The nature of blood sugar. II, 157
Stadie, William C. An electron tube potentiometer for the determination of pH with the glass electrode, 477
Steenbock, H. See ELVEHJEM, STEENBOCK, and HART, 21, 27
—. See WADDELL, STEENBOCK, ELVEHJEM, and HART, 251
—. See WADDELL, STEENBOCK, and HART, 243
Stiebeling, H. K. See SHERMAN and STIEBELING, 497
Sure, Barnett, Kik, M. C., and Walker, Dorothy J. The effect of avitaminosis on hematopoietic function. I. Vitamin A deficiency, 375
—, —, and —. II. Vitamin B deficiency, 387
—, —, and —. III. Vitamin E deficiency, 401

T

Thomas, Giles W. The influence of hemocyanin on the distribution of chloride between sea water and the blood of *Limulus polyphemus*, 71
Titus, R. W., and Hughes, J. S. The storage of manganese and copper in the animal body and its influence on hemoglobin building, 463
Tolstoi, Edward. The effect of an exclusive meat diet lasting one year on the carbohydrate tolerance of two normal men, 747
Tolstoi, Edward. The effect of an exclusive meat diet on the chemical constituents of the blood, 753
Turner, R. G. See ROCKWOOD, TURNER, and PFIFFNER, 289

V

Van Donk, Evelyn. See WADDELL, STEENBOCK, ELVEHJEM, and HART, 251
—. See WADDELL, STEENBOCK, and HART, 243
Van Slyke, Donald D. The determination of acetone bodies in blood and urine. Reply to criticisms by E. C. Smith, 415
—. Manometric determination of primary amino nitrogen and its application to blood analysis, 425
—. The manometric determination of urea in blood and urine by the hypobromite reaction, 449
— and **Hawkins, James A.** Gasometric determination of fermentable sugar in blood and urine, 51
Vickery, Hubert Bradford, and Leavenworth, Charles S. The separation of cystine from histidine: The basic amino acids of human hair, 523
— and **Pucher, George W.** The determination of ammonia and amide nitrogen in tobacco by the use of permutit, 1

W

Waddell, J., Steenbock, H., Elvehjem, C. A., and **Hart, E. B.** Iron in nutrition. IX. Further proof that the anemia produced on diets of whole milk and iron is due to a deficiency of copper, 251

—, —, and **Hart, E. B.** Iron in nutrition. VIII. The ineffectiveness of high doses of iron in curing anemia in the rat, 243

Walker, Dorothy J. See SURE, KIK, and WALKER, 375, 387, 401

Washburn, Martha. See SHEAR, WASHBURN, and KRAMER, 697

Waterman, Robert E. See WILLIAMS, WATERMAN, and GURIN, 321

Weil, Arthur. The influence of formalin fixation on the lipoids of the central nervous system, 601

West, Randolph. See DAKIN and WEST, 773

Whittier, E. O. Buffer intensities of milk and milk constituents. I. The buffer action of casein in milk, 79

Wilhelmj, Charles M. See BOOTHBY, WILHELMJ, and WILSON, 657

Williams, Robert R., Waterman, Robert E., and **Gurin, Samuel.** The effect of pH control in the autoclaving of yeast with respect to the vitamin B factors, 321

Williams, Roger J., McAlister, Edward D., and **Roehm, Richard R.** A rapid and accurate method for determining the quantity of yeast or other microorganisms in a suspension, 315

Wilson, H. Ellis C. See BOOTHBY, WILHELMJ, and WILSON, 657

Y

Yamaguchi, S. See MICHAELIS and YAMAGUCHI, 367

INDEX TO SUBJECTS.

A

Acetate:
Ion, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721

Acetone bodies:
Blood, determination (VAN SLYKE) 415
Determination, blood (VAN SLYKE) 415
—, urine (VAN SLYKE) 415
Urine, determination (VAN SLYKE) 415

Acid(s):
Bile. *See* Bile acid.
Fatty. *See* Fatty acid.

Acid-base:
Blood condition. I (EARLE and CULLEN) 539
— —. II (CULLEN and EARLE) 545
—, diurnal changes in condition (CULLEN and EARLE) 545

Aliphatic acid:
Chloro- (2-, 3-, 4-substituted), hydroxyaliphatic acids, configurational correlation (LEVENE and HALLER) 591
Hydroxy- (2-, 3-, 4-substituted), chloroaliphatic acids, configurational correlation (LEVENE and HALLER) 591

Aluminum:
Animal matter (KAHLENBERG and CLOSS) 261
Plant matter (KAHLENBERG and CLOSS) 261

Amide nitrogen:
Determination, tobacco, permutit (VICKERY and PUCHER) 1
Tobacco, determination, permutit (VICKERY and PUCHER) 1

Amino acid(s):
Basic, casein, determination (CALVERY) 631
—, determination, casein (CALVERY) 631
—, —, edestin (CALVERY) 631
—, developing egg, hen's (CALVERY) 649
—, edestin, determination (CALVERY) 631
—, hair (VICKERY and LEAVENWORTH) 523
Optical properties. II (KEENAN) 137

Amino nitrogen:
Primary, blood, determination, manometric (VAN SLYKE) 425
—, determination, manometric blood (VAN SLYKE) 425

XUM

Ammonia:
Determination, tobacco, permutit (VICKERY and PUCHER) 1
Tobacco, determination, permutit (VICKERY and PUCHER) 1
Anemia:
Copper deficiency, iron and milk diets, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
— —, milk and iron diets, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Iron and milk diets, copper deficiency relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
—, ineffectiveness (WADDELL, STEENBOCK, and HART) 243
Milk and iron diets, copper deficiency relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Animal:
Matter, aluminum (KAHLENBERG and CLOSS) 261
Tissue, chlorides, determination, electrometric (FORBES and IRVING) 337
Arachidonic acid:
Spleen lipids (BROWN) 777
Suprarenal lipids (BROWN) 777
Thyroid lipids (BROWN) 777
Arginine:
Optical properties (KEENAN) 137
Avitaminosis:
Hematopoietic function, effect. I (SURE, KIK, and WALKER) 375
— —, —. II (SURE, KIK, and WALKER) 387
— —, —. III (SURE, KIK, and WALKER) 401

B

Bacillus:
Tubercle, avian, defatted residue, analysis (RENFREW) 569
—, lipoids, chemistry. III (ANDERSON) 169
—, —, —. IV (ANDERSON) 505
—, wax (ANDERSON) 505
Bacteria:
Chemical study. XXIX (RENFREW) 569
Bergeim:
Intestinal putrefaction test (HOELZEL) 331
Betaine:
Trimethyl-α-glutaro- (DAKIN and WEST) 773
Bile acid(s):
Determination, colorimetric, with monochromatic light (GREGORY and PASCOE) 35
Biological assay:
Vitamin A, colorimetric assay, comparison, fish oils (NORRIS and DANIELSON) 469
— —, fish oils, colorimetric assay, comparison (NORRIS and DANIELSON) 469
Blood:
Acetone bodies, determination (VAN SLYKE) 415

Blood—*continued:*
Acid-base condition. I (EARLE and CULLEN) 539
— —. II (CULLEN and EARLE) 545
— —, diurnal changes (CULLEN and EARLE) 545
Amino nitrogen, primary, determination, manometric (VAN SLYKE) 425
Carbon monoxide, determination (PILAAR) 43
Chloride, determination, electrometric (FORBES and IRVING) 337
—, *Limulus polyphemus*, distribution between sea water and, hemocyanin influence (THOMAS) 71
Constituent, meat diet effect (TOLSTOI) 753
—, new (ROCKWOOD, TURNER, and PFIFFNER) 289
Copper distribution (ELVEHJEM, STEENBOCK, and HART) 21
Glutathione, non-sugar reducing substances (BENEDICT and NEWTON) 361
Hydrogen ion concentration determination, micro electrode and vessel (SALLE) 765
Limulus polyphemus, chloride distribution between sea water and, hemocyanin influence (THOMAS) 71
Meat diet, constituents (TOLSTOI) 753
Blood—*continued:*
Media, hydrogen ion concentration determination, micro electrode and vessel (SALLE) 765
Non-sugar reducing substances. I (BENEDICT and NEWTON) 361
Proteins, tungstomolybdic acid as precipitant (BENEDICT and NEWTON) 357
Reducing substances, non-sugar. I (BENEDICT and NEWTON) 361
Sugar determination (BENEDICT) 165
— —, different methods (FOLIN and MALMROS) 121
—, —, micro (FOLIN and MALMROS) 115
—, fermentable, determination, different methods (FOLIN and MALMROS) 121
—, —, —, gasometric (VAN SLYKE and HAWKINS) 51
—, muscle, skeletal, effect (SAHYUN and ALSBERG) 129
—, nature. II (SOMOGYI) 157
Thioneine, non-sugar reducing subtances (BENEDICT and NEWTON) 361
Urea determination (LEIBOFF and KAHN) 347
— —, manometric, hypobromite reaction (VAN SLYKE) 449
Blood plasma:
Carbon dioxide determination (SHOHL) 759

Blood plasma—*continued:*
Hydrogen ion concentration determination (SHOHL) 759
Blood serum:
Carbon dioxide content, normal variation (EARLE and CULLEN) 539
— — determination (SHOHL) 759
Hydrogen ion concentration determination (SHOHL) 759
— — —, normal variation (EARLE and CULLEN) 539
Solutions, dicalcium phosphate, equilibration (SHEAR, WASHBURN, and KRAMER) 697
—, equilibration with dicalcium phosphate (SHEAR, WASHBURN, and KRAMER) 697
Bone:
Composition. VII (SHEAR, WASHBURN, and KRAMER) 697
—. VIII (SHEAR, KRAMER, and RESNIKOFF) 721
Brain:
Lipids, fatty acid, unsaturated, new (BROWN) 783
Buffer action:
Casein in milk (WHITTIER) 79
Buffer intensity:
Milk. I (WHITTIER) 79
— constituents. I (WHITTIER) 79

C

Calcium:
Ion, acetate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Ion, chloride ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
—, citrate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
—, conductivity titrations, acetate ion (SHEAR, KRAMER, and RESNIKOFF) 721
—, — —, chloride ion (SHEAR, KRAMER, and RESNIKOFF) 721
—, — —, citrate ion (SHEAR, KRAMER, and RESNIKOFF) 721
—, — —, lactate ion (SHEAR, KRAMER, and RESNIKOFF) 721
—, lactate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Micro analysis (KIRK and SCHMIDT) 311
Muscle, parathyroid tetany (DIXON, DAVENPORT, and RANSON) 737
Parathyroid tetany, muscle (DIXON, DAVENPORT, and RANSON) 737
Carbinol:
Ethylbutyl, lactic acid, configurational relationship (LEVENE and HALLER) 579
Propylbutyl, lactic acid, configurational relationship (LEVENE and HALLER) 579

Carbohydrate:
Tolerance, meat diet (TOLSTOI) 747
Carbon dioxide:
Blood plasma, determination (SHOHL) 759
— serum, determination (SHOHL) 759
— —, normal variation (EARLE and CULLEN) 539
Determination, blood plasma (SHOHL) 759
—, — serum (SHOHL) 759
Carbon monoxide:
Blood, determination (PILAAR) 43
Determination, blood (PILAAR) 43
Carpenter:
Gas analysis apparatus, Haldane (CARPENTER, FOX, and SEREQUE) 211
Haldane gas analysis apparatus (CARPENTER, FOX, and SEREQUE) 211
Casein:
Amino acids, basic, determination (CALVERY) 631
Buffer action in milk (WHITTIER) 79
Milk, buffer action (WHITTIER) 79
Central nervous system:
Lipoids, formalin fixation, influence (WEIL) 601
Chloride(s):
Blood, determination, electrometric (FORBES and IRVING) 337
—, *Limulus polyphemus*, and sea water, hemocyanin influence on distribution between (THOMAS) 71
Determination, electrometric, animal tissues (FORBES and IRVING) 337
—, —, blood (FORBES and IRVING) 337
Hemocyanin influence, blood of *Limulus polyphemus* and sea water, distribution between (THOMAS) 71
— —, sea water and blood of *Limulus polyphemus*, distribution between (THOMAS) 71
Ion, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Sea water and *Limulus polyphemus* blood, hemocyanin influence on distribution between (THOMAS) 71
Tissue, animal, determination, electrometric (FORBES and IRVING) 337
Chloroaliphatic acid(s):
Hydroxyaliphatic acids, 2-, 3-, 4-substituted, configurational correlation (LEVENE and HALLER) 591
Chloropropionic acid:
Chlorosuccinic acid, configurational relationship (LEVENE and HALLER) 185
Chlorosuccinic acid:
Chloropropionic acid, configurational relationship

Chlorosuccinic acid—*continued:*
(LEVENE and HALLER) 185
Lactic acid, configurational relationship (LEVENE and HALLER) 185
Citrate:
Ion, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Cobalt:
Colorimetric method, micro analysis (MICHAELIS and YAMAGUCHI) 367
Cysteine complex, oxidized, composition (MICHAELIS and YAMAGUCHI) 367
Oxidized, cysteine complex, composition (MICHAELIS and YAMAGUCHI) 367
Colorimeter:
Monochromatic light, bile acids determination (GREGORY and PASCOE) 35
Colorimetric determination:
Bile acids, with monochromatic light (GREGORY and PASCOE) 35
Cobalt (MICHAELIS and YAMAGUCHI) 367
Cystine determination, proteins (FOLIN and MARENZI) 103
Vitamin A, biological assay, comparison, fish oils (NORRIS and DANIELSON) 469
— —, fish oils, biological assay, comparison (NORRIS and DANIELSON) 469
Conductivity titration:
Acetate ion, calcium ion (SHEAR, KRAMER, and RESNIKOFF) 721
Calcium ion, acetate ion (SHEAR, KRAMER, and RESNIKOFF) 721
— —, chloride ion (SHEAR, KRAMER, and RESNIKOFF) 721
— —, citrate ion (SHEAR, KRAMER, and RESNIKOFF) 721
— —, lactate ion (SHEAR, KRAMER, and RESNIKOFF) 721
Chloride ion, calcium ion (SHEAR, KRAMER, and RESNIKOFF) 721
Citrate ion, calcium ion (SHEAR, KRAMER, and RESNIKOFF) 721
Lactate ion, calcium ion (SHEAR, KRAMER, and RESNIKOFF) 721
Copper:
Anemia, deficiency from iron and milk diets (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
—, — — milk and iron diets (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Blood, distribution (ELVEHJEM, STEENBOCK, and HART) 21
Deficiency, anemia, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Hemoglobin building influence (TITUS and HUGHES) 463

Copper—*continued:*
Hemoglobin molecule constituent (ELVEHJEM, STEENBOCK, and HART) 21
Milk, diet effect on content (ELVEHJEM, STEENBOCK, and HART) 27
Storage, body (TITUS and HUGHES) 463
Creatine:
Excretion, fasting (MORGULIS) 299
Fasting, excretion (MORGULIS) 299
Creatinine:
Excretion, fasting (MORGULIS) 299
Fasting, excretion (MORGULIS) 299
Cysteine:
Cobalt, oxidized, complex, composition (MICHAELIS and YAMAGUCHI) 367
Iron group, complexes (MICHAELIS and BARRON) 191
Cystine:
Alkali action (GORTNER and SINCLAIR) 681
Determination, colorimetric, proteins (FOLIN and MARENZI) 103
Histidine, separation (VICKERY and LEAVENWORTH) 523
Proteins, determination, colorimetric (FOLIN and MARENZI) 103

D

Diabetes:
Phlorhizin, mechanism. III (NASH) 139
Dicalcium phosphate:
Blood serum solutions, equilibration with (SHEAR, WASHBURN, and KRAMER) 697
Dicalcium phosphate—*continued:*
Equilibration with blood serum solutions (SHEAR, WASHBURN, and KRAMER) 697
Diet:
Anemia, iron and milk diet (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
—, milk and iron diet (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Copper in milk, effect (ELVEHJEM, STEENBOCK, and HART) 27
Copper-deficient, anemia, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Iron and milk, anemia from, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Meat, blood constituents, effect (TOLSTOI) 753
—, carbohydrate tolerance, normal man (TOLSTOI) 747
Milk and iron, anemia from, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
3,5-Diiodotyrosine:
Isolation, thyroid (FOSTER) 345
Thyroid, isolation (FOSTER) 345

E

Edestin:
Amino acids, basic, determination (CALVERY) 631

Egg:
Amino acids, basic, developing, hen's (CALVERY) 649
Developing, hen's, amino acids, basic (CALVERY) 649
—, —, nitrogen distribution (CALVERY) 231
Nitrogen distribution, developing, hen's (CALVERY) 231
Electrode:
Glass, hydrogen ion concentration determination, electron tube potentiometer (STADIE) 477
Micro, hydrogen ion concentration determination, biological fluids (SALLE) 765
—, — — — determination, blood (SALLE) 765
—, — — — determination, blood media (SALLE) 765
Quinhydrone, improved form (CULLEN) 535
Electrometric determination:
Chlorides, animal tissues (FORBES and IRVING) 337
—, blood (FORBES and IRVING) 337
Electron:
Tube potentiometer, hydrogen ion concentration determination, glass electrode (STADIE) 477
Embryo:
Metabolism. III (CALVERY) 231
—. IV (CALVERY) 649
Ethylbutyl carbinol:
Lactic acid, configurational relationship (LEVENE and HALLER) 579
Excretion:
Creatine, fasting (MORGULIS) 299
Creatinine, fasting (MORGULIS) 299
Fasting, creatine (MORGULIS) 299
—, creatinine (MORGULIS) 299
Lead, urine (MILLET) 265
Uric acid, endogenous, glycine ingestion effect (CHRISTMAN and MOSIER) 11

F

Fasting:
Creatine excretion (MORGULIS) 299
Creatinine excretion (MORGULIS) 299
Fat:
Antineuritic vitamin B, sparing action (EVANS and LEPKOVSKY) 269
-sparing action, antineuritic vitamin B (EVANS and LEPKOVSKY) 269
— —, vitamin B, antineuritic (EVANS and LEPKOVSKY) 269
Vitamin B, antineuritic, sparing action (EVANS and LEPKOVSKY) 269
Fatty acid(s):
Brain lipids, unsaturated, new (BROWN) 783
Unsaturated, brain lipids, new (BROWN) 783

Fermentation:
Gas, determination, manometric (RAYMOND) 611
Fish:
Oil, vitamin A, biological and colorimetric assays, comparison (NORRIS and DANIELSON) 469
—, — —, colorimetric and biological assays, comparison (NORRIS and DANIELSON) 469
Folin:
Blood sugar, determination, micro (FOLIN and MALMROS) 115
Sugar, blood, determination, micro (FOLIN and MALMROS) 115
Formalin:
Fixation, lipoids, central nervous system (WEIL) 601

G

Gas:
Determination, manometric, fermentations (RAYMOND) 611
Fermentations, determination, manometric (RAYMOND) 611
Gas analysis:
Apparatus, Haldane, Carpenter form (CARPENTER, FOX, and SEREQUE) 211
Haldane apparatus, Carpenter form (CARPENTER, FOX, and SEREQUE) 211
Gasometric determination:
Sugar, fermentable, blood (Van SLYKE and HAWKINS) 51
—, —, urine (VAN SLYKE and HAWKINS) 51
Glucose:
Oxidation, phlorhizin glycosuria (BOOTHBY, WILHELMJ, and WILSON) 657
Phlorhizin glycosuria, oxidation (BOOTHBY, WILHELMJ, and WILSON) 657
Glutathione:
Blood, non-sugar reducing substances (BENEDICT and NEWTON) 361
Glycine:
Uric acid, endogenous, excretion, ingestion effect (CHRISTMAN and MOSIER) 11
Glycogen:
Phlorhizin effect on storage, ligated ureters, dogs (NASH) 139
Storage, phlorhizin effect, ligated ureters, dogs (NASH) 139
Glycosuria:
Phlorhizin, glucose oxidation (BOOTHBY, WILHELMJ, and WILSON) 657

H

Hair:
Amino acids, basic (VICKERY and LEAVENWORTH) 523
Haldane:
Gas analysis apparatus, Carpenter form (CARPENTER, FOX, and SEREQUE) 211
Heat:
Vitamins B and G, yeast, differentiation by (KENNEDY and PALMER) 493
— G and B, yeast, differ-

Heat—*continued:*
entiation by (KENNEDY and PALMER) 493
Hematopoiesis:
Avitaminosis effect. I (SURE, KIK, and WALKER) 375
— —. II (SURE, KIK, and WALKER) 387
— —. III (SURE, KIK, and WALKER) 401
Uric acid, endogenous, and (KRAFKA) 409
Vitamin A deficiency (SURE, KIK, and WALKER) 375
— B deficiency (SURE, KIK, and WALKER) 387
— E deficiency (SURE, KIK, and WALKER) 401
Hemocyanin:
Chloride distribution between sea water and *Limulus polyphemus* blood, influence (THOMAS) 71
Hemoglobin:
Building, copper effect (TITUS and HUGHES) 463
—, manganese effect (TITUS and HUGHES) 463
Copper in molecule (ELVEHJEM, STEENBOCK, and HART) 21
Hexosephosphate:
Synthetic (RAYMOND and LEVENE) 619
—, phenylhydrazine derivatives (RAYMOND and LEVENE) 619
Histidine:
Cystine, separation (VICKERY and LEAVENWORTH) 523
Histidine—*continued:*
Optical properties (KEENAN) 137
Honey:
Invertase (PAPADAKIS) 561
Hydrogen ion concentration:
Biological fluids, determination, micro electrode and vessel (SALLE) 765
Blood, determination, micro electrode and vessel (SALLE) 765
—, media, determination, micro electrode and vessel (SALLE) 765
— plasma, determination (SHOHL) 759
— serum, determination (SHOHL) 759
— —, normal variation (EARLE and CULLEN) 539
Determination, blood plasma (SHOHL) 759
—, — serum (SHOHL) 759
—, glass electrode, electron tube potentiometer (STADIE) 477
—, micro electrode and vessel, biological fluids (SALLE) 765
—, — — — vessel, blood (SALLE) 765
—, — — — vessel, blood media (SALLE) 765
—, potentiometer, electron tube, glass electrode (STADIE) 477
Vitamin B factors, yeast autoclaving, effect (WILLIAMS, WATERMAN, and GURIN) 321
Yeast autoclaving, vitamin B factors, effect (WIL-

Hydrogen ion concentration—*continued:*
LIAMS, WATERMAN, and GURIN) 321
Hydroxyaliphatic acid(s):
Chloroaliphatic acids, 2-, 3-, 4-substituted, configurational correlation (LEVENE and HALLER) 591
Hypobromite:
Urea, determination, manometric (VAN SLYKE) 449

I

Intestine:
Bergeim test, putrefaction (HOELZEL) 331
Putrefaction, Bergeim test (HOELZEL) 331
Invertase:
Honey (PAPADAKIS) 561
Ion:
Acetate, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Calcium, acetate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
—, chloride ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
—, citrate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
—, lactate ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Ion—*continued:*
Chloride, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Citrate, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Lactate, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Iron:
Anemia, ineffectiveness (WADDELL, STEENBOCK, and HART) 243
—, milk and, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Cysteine complexes, group (MICHAELIS and BARRON) 191
Milk and, anemia, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Nutrition. VIII (WADDELL, STEENBOCK, and HART) 243
—. IX (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Irradiation:
Ultra-violet, vitamins B and G, yeast, differentiation by (KENNEDY and PALMER) 493
—, — G and B, yeast, differentiation by (KENNEDY and PALMER) 493

L

Lactate:
Ion, calcium ion, conductivity titrations (SHEAR, KRAMER, and RESNIKOFF) 721
Lactic acid:
Chlorosuccinic acid, configurational relationship (LEVENE and HALLER) 185
Ethylbutyl carbinol, configurational relationship (LEVENE and HALLER) 579
2-Methylheptanol-(6), configurational relationship (LEVENE and HALLER) 177
Propylbutyl carbinol, configurational relationship (LEVENE and HALLER) 579
Lead:
Excretion, urine (MILLET) 265
Urine excretion (MILLET) 265
Limulus polyphemus:
Blood, chloride distribution between sea water and, hemocyanin influence (THOMAS) 71
Lipid:
Brain, fatty acid, unsaturated, new (BROWN) 783
Spleen, arachidonic acid in (BROWN) 777
Suprarenal, arachidonic acid in (BROWN) 777
Thyroid, arachidonic acid in (BROWN) 777
Lipoid:
Central nervous system, formalin fixation influence (WEIL) 601
Formalin fixation, central nervous system, influence (WEIL) 601
Tubercle bacillus, chemistry. III (ANDERSON) 169
— —, —. IV (ANDERSON) 505
— —, phthioic acid (ANDERSON) 169
— —, wax (ANDERSON) 505
Liver:
Acute yellow atrophy, biochemical findings (RABINOWITCH) 333
Atrophy, acute yellow, biochemical findings (RABINOWITCH) 333

M

Manganese:
Hemoglobin building influence (TITUS and HUGHES) 463
Storage, body (TITUS and HUGHES) 463
Manometric determination:
Amino nitrogen, primary, blood (VAN SLYKE) 425
Fermentations, gas in (RAYMOND) 611
Gas in fermentations (RAYMOND) 611
Nitrogen, amino, primary, blood (VAN SLYKE) 425
Urea, blood, hypobromite reaction (VAN SLYKE) 449

Manometric determination—*continued:*
Urea, urine, hypobromite reaction (VAN SLYKE) 449
Meat:
Blood constituents, diet effect (TOLSTOI) 753
Carbohydrate tolerance, diet effect (TOLSTOI) 747
Diet, blood constituents, effect (TOLSTOI) 753
—, carbohydrate tolerance (TOLSTOI) 747
Metabolism:
Embryonic. III (CALVERY) 231
—. IV (CALVERY) 649
Purine. II (CHRISTMAN and MOSIER) 11
2-Methylheptanol-(6):
Lactic acid, configurational relationship (LEVENE and HALLER) 177
Microorganism:
Determination in suspension (WILLIAMS, MCALISTER, and ROEHM) 315
Milk:
Anemia, iron and, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Buffer intensity. I (WHITTIER) 79
Casein, buffer action (WHITTIER) 79
Constituents, buffer intensity. I (WHITTIER) 79
Copper content, diet effect (ELVEHJEM, STEENBOCK, and HART) 27
Diet effect on copper content of (ELVEHJEM, STEENBOCK, and HART) 27
Iron and, anemia, copper deficiency, relation (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251
Monochromatic light:
Bile acids, colorimetric determination (GREGORY and PASCOE) 35
Muscle:
Blood sugar, skeletal, effect (SAHYUN and ALSBERG) 129
Calcium content, parathyroid tetany (DIXON, DAVENPORT, and RANSON) 737
Parathyroid tetany, acid-soluble phosphorus (DAVENPORT, DIXON, and RANSON) 741
— —, calcium content (DIXON, DAVENPORT, and RANSON) 737
Phosphorus. III (DAVENPORT, DIXON, and RANSON) 741
—, acid-soluble, parathyroid tetany (DAVENPORT, DIXON, and RANSON) 741
Skeletal, blood sugar, effect (SAHYUN and ALSBERG) 129

N

Neuritis:
Vitamin B, antineuritic, fat-sparing action (EVANS and LEPKOVSKY) 269

Nitrogen:
Amide, determination, tobacco, permutit (VICKERY and PUCHER) 1
—, tobacco, determination, permutit (VICKERY and PUCHER) 1
Amino, primary, determination, manometric, blood (VAN SLYKE) 425
Distribution, developing egg, hen's (CALVERY) 231
Egg, developing, hen's, distribution (CALVERY) 231

Nucleic acid:
Thymo-, structure (LEVENE and LONDON) 793

Nutrition:
Iron. VIII (WADDELL, STEENBOCK, and HART) 243
—. IX (WADDELL, STEENBOCK, ELVEHJEM, and HART) 251

O

Oil:
Fish, vitamin A, biological and colorimetric assays, comparison (NORRIS and DANIELSON) 469
—, — —, colorimetric and biological assays, comparison (NORRIS and DANIELSON) 469

Optical activity:
Unsaturation effect (LEVENE and HALLER) 177, 579

Optical properties:
Amino acids. II (KEENAN) 137
Optical properties—*continued:*
Arginine (KEENAN) 137
Histidine (KEENAN) 137

Oxidation-reduction:
Systems, biological significance. IV (MICHAELIS and BARRON) 191
—, — —. V (MICHAELIS and YAMAGUCHI) 367

P

Parathyroidectomy:
Tetany, muscle, calcium content (DIXON, DAVENPORT, and RANSON) 737
—, —, phosphorus acid-soluble compounds (DAVENPORT, DIXON, and RANSON) 741

Permutit:
Amide nitrogen determination, tobacco (VICKERY and PUCHER) 1
Ammonia determination, tobacco (VICKERY and PUCHER) 1

Phlorhizin:
Diabetes, mechanism. III (NASH) 139
Glycogen storage, ligated ureters effect, dogs (NASH) 139
Glycosuria, glucose oxidation (BOOTHBY, WILHELMJ, and WILSON) 657

Phosphorus:
Acid-soluble compounds, muscle, parathyroid tetany (DAVENPORT, DIXON, and RANSON) 741

Phosphorus—*continued:*
Muscle. III (DAVENPORT, DIXON, and RANSON) 741
Parathyroid tetany, acid-soluble compounds, muscle (DAVENPORT, DIXON, and RANSON) 741
Phthioic acid:
Preparation, tubercle bacillus (ANDERSON) 169
Properties (ANDERSON) 169
Tubercle bacillus, preparation (ANDERSON) 169
Plant:
Matter, aluminum (KAHLENBERG and CLOSS) 261
Potentiometer:
Electron tube, hydrogen ion concentration determination, glass electrode (STADIE) 477
Propylbutyl carbinol:
Lactic acid, configurational relationship (LEVENE and HALLER) 579
Protein(s):
Blood, tungstomolybdic acid as precipitant (BENEDICT and NEWTON) 357
Cystine, determination, colorimetric (FOLIN and MARENZI) 103
Sulfur. IV (GORTNER and SINCLAIR) 681
Tryptophane determination (FOLIN and MARENZI) 89
Tyrosine determination (FOLIN and MARENZI) 89
Purine:
Metabolism. II (CHRISTMAN and MOSIER) 11
Putrefaction:
Bergeim test, intestinal (HOELZEL) 331
Intestinal, Bergeim test (HOELZEL) 331

Q

Quinhydrone:
Electrode, improved form (CULLEN) 535

R

Reduction:
Non-sugar reducing substances, blood. I (BENEDICT and NEWTON) 361
— — —, urine. I (BENEDICT and NEWTON) 361
Ribodesose:
Thyminose structure, relation (LEVENE and MORI) 803

S

Sea water:
Chloride distribution between *Limulus polyphemus* blood and, hemocyanin influence (THOMAS) 71
Spleen:
Arachidonic acid, lipids (BROWN) 777
Lipids, arachidonic acid (BROWN) 777
Sugar:
Blood, determination (BENEDICT) 165

Sugar—*continued.*
Blood, determination, different methods (FOLIN and MALMROS) 121
—, —, micro (FOLIN and MALMROS) 115
—, fermentable, determination, different methods (FOLIN and MALMROS) 121
—, muscle, skeletal, effect (SAHYUN and ALSBERG) 129
—, nature. II (SOMOGYI) 157
Determination, blood (BENEDICT) 165
—, —, different methods (FOLIN and MALMROS) 121
—, —, fermentable, different methods (FOLIN and MALMROS) 121
—, micro, blood (FOLIN and MALMROS) 115
Fermentable, blood, determination, gasometric (VAN SLYKE and HAWKINS) 51
—, determination, gasometric, blood (VAN SLYKE and HAWKINS) 51
—, —, —, urine (VAN SLYKE and HAWKINS) 51
—, urine, determination, gasometric (VAN SLYKE and HAWKINS) 51
Non-, reducing substances, blood. I (BENEDICT and NEWTON) 361
—, — —, urine. I (BENEDICT and NEWTON) 361

Sulfur:
Proteins. IV (GORTNER and SINCLAIR) 681

Suprarenal:
Arachidonic acid, lipids (BROWN) 777
Lipids, arachidonic acid (BROWN) 777

T

Tetany:
Parathyroid, muscle, calcium content (DIXON, DAVENPORT, and RANSON) 737
—, —, phosphorus acid-soluble compounds (DAVENPORT, DIXON, and RANSON) 741

Thioneine:
Blood, non-sugar reducing substances (BENEDICT and NEWTON) 361

Thyminose:
Ribodesose, structure relation (LEVENE and MORI) 803
Xylodesose, structure relation (LEVENE and MORI) 803

Thymonucleic acid:
Structure (LEVENE and LONDON) 793

Thyroid:
Arachidonic acid, lipids (BROWN) 777
3,5-Diiodotyrosine, isolation (FOSTER) 345
Lipids, arachidonic acid (BROWN) 777

Tissue:
Animal, chlorides, electrometric determination (FORBES and IRVING) 337
Muscle, calcium content, parathyroid tetany (DIXON, DAVENPORT, and RANSON) 737
—, parathyroid tetany, calcium content (DIXON, DAVENPORT, and RANSON) 737
Tobacco:
Amide nitrogen determination, permutit (VICKERY and PUCHER) 1
Ammonia determination, permutit (VICKERY and PUCHER) 1
Tolerance:
Carbohydrate, meat diet (TOLSTOI) 747
Trimethyl-α-glutarobetaine:
(DAKIN and WEST) 773
Tryptophane:
Determination, protein (FOLIN and MARENZI) 89
Protein, determination (FOLIN and MARENZI) 89
Tubercle:
Bacillus, avian, defatted residue, analysis (RENFREW) 569
—, lipoids, chemistry. III (ANDERSON) 169
—, —, —. IV (ANDERSON) 505
—, phthioic acid, preparation (Anderson) 169
—, wax (ANDERSON) 505
Tungstomolybdic acid:
Blood proteins, precipitant (BENEDICT and NEWTON) 357
Tyrosine:
Crystals (ANDREWS) 353
Determination, protein (FOLIN and MARENZI) 89
Protein, determination (FOLIN and MARENZI) 89

U

Ultra-violet:
Irradiation, vitamins B and G, yeast, differentiation by (KENNEDY and PALMER) 493
—, — G and B, yeast, differentiation by (KENNEDY and PALMER) 493
Unsaturation:
Optical activity, effect (LEVENE and HALLER) 177, 579
Urea:
Blood, determination (LEIBOFF and KAHN) 347
—, —, manometric, hypobromite reaction (VAN SLYKE) 449
Determination, blood (LEIBOFF and KAHN) 347
—, manometric, blood, hypobromite reaction (VAN SLYKE) 449
—, —, urine, hypobromite reaction (VAN SLYKE) 449
Origin, body (RABINOWITCH) 333

Urea—*continued:*
Urine, determination, manometric, hypobromite reaction (VAN SLYKE) 449
Ureter:
Ligated, glycogen storage, phlorhizin effect, dogs (NASH) 139
—, phlorhizin effect on glycogen storage, dogs (NASH) 139
Uric acid:
Endogenous, excretion, glycine ingestion effect (CHRISTMAN and MOSIER) 11
—, hematopoiesis and (KRAFKA) 409
Excretion, endogenous, glycine ingestion effect (CHRISTMAN and MOSIER) 11
Glycine ingestion, endogenous, excretion effect (CHRISTMAN and MOSIER) 11
Hematopoiesis and, endogenous (KRAFKA) 409
Reagent, phenol-free, preparation (FOLIN and MARENZI) 109
Urine:
Acetone bodies, determination (VAN SLYKE) 415
Lead excretion (MILLET) 265
Non-sugar reducing substances. I (BENEDICT and NEWTON) 361
Reducing substances, non-sugar. I (BENEDICT and NEWTON) 361
Urine—*continued:*
Sugar, fermentable, determination, gasometric (VAN SLYKE and HAWKINS) 51
Urea determination, manometric, hypobromite reaction (VAN SLYKE) 449

V

Vickery-Leavenworth:
Amino-acids, basic, determination, modified (CALVERY) 631
Vitamin(s):
A, biological and colorimetric assays, comparison, fish oils (NORRIS and DANIELSON) 469
—, colorimetric and biological assays, comparison, fish oils (NORRIS and DANIELSON) 469
— deficiency, hematopoietic function (SURE, KIK, and WALKER) 375
—, fish oils, biological and colorimetric assays, comparison (NORRIS and DANIELSON) 469
—, — —, colorimetric and biological assays (NORRIS and DANIELSON) 469
Antineuritic B, fat-sparing action (EVANS and LEPKOVSKY) 269
B and G, yeast, differentiation by heat (KENNEDY and PALMER) 493

Vitamin(s)—*continued:*
B and G, yeast, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493
—, antineuritic, fat-sparing action (EVANS and LEPKOVSKY) 269
— deficiency, hematopoietic function (SURE, KIK, and WALKER) 387
— factors, yeast autoclaving, hydrogen ion concentration effect (WILLIAMS, WATERMAN, and GURIN) 321
D, quantitative study (SHERMAN and STIEBELING) 497
E deficiency, hematopoietic function (SURE, KIK, and WALKER) 401
G and B, yeast, differentiation by heat (KENNEDY and PALMER) 493
— — —, —, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493
Yeast, B and G, differentiation by heat (KENNEDY and PALMER) 493
—, — — —, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493
—, G and B, differentiation by heat (KENNEDY and PALMER) 493

Vitamin(s)—*continued:*
Yeast, B and G, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493

W

Wax:
Tubercle bacillus (ANDERSON) 505

X

Xylodesose:
Thyminose structure, relation (LEVENE and MORI) 803

Y

Yeast:
Autoclaving, hydrogen ion concentration effect, vitamin B factors (WILLIAMS, WATERMAN, and GURIN) 321
—, vitamin B factors, hydrogen ion concentration effect (WILLIAMS, WATERMAN, and GURIN) 321
Determination in suspension (WILLIAMS, MCALISTER, and ROEHM) 315
Vitamins B and G, differentiation by heat (KENNEDY and PALMER) 493
— — — —, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493
— G and B, differentiation by heat (KENNEDY and PALMER) 493
— — — —, differentiation by ultra-violet irradiation (KENNEDY and PALMER) 493